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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/464,867	12/16/1999	WAYNE M. SCHOTT	PHA-23.820	8191

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

HARVEY, DIONNE

ART UNIT PAPER NUMBER

2643

15

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/464,867

Applicant(s)

SCHOTT, WAYNE M.

Examiner

Dionne N Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

- The following is a quotation of the appropriate paragraphs of **35 U.S.C. 102** that form the basis for the rejections under this section made in this Office action: A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- The following is a quotation of **35 U.S.C. 103(a)** which forms the basis for all obviousness rejections set forth in this Office action: (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tamura (JP 4-301998).

1. Under U.S.C. 102(b):

Regarding claims 1,2,6,7,11 and 16,

Tamura teaches a loudspeaker comprising an enclosure (1); transducer (3); internal vent i.e., first means (6); first external vent i.e., second means (7) and second external vent i.e., third means (8); the ratio of the acoustic mass of the internal vent to the second external vent being approximately 3/1 to 7/1, as broadly claimed; and the ratio of the acoustic mass of the first external vent to the second external vent being approximately 15/1 to 30/1, as broadly claimed.

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Regarding claims 3, 8, 13 and 18,

Tamura teaches that the ratio of the first sub-chamber to the second sub-chamber is in a range of approximately 0.3 to 2.5, as broadly claimed.

Regarding claims 4,5,9,10,14,15,19 and 20,

Tamura teaches that the cone (3) has a front surface in communication with a first sub-chamber (4) and rear surface in communication with the second sub-chamber (5).

2. **Under U.S.C. 103(a) and interpreted in a different manner:**

Regarding claims 1,2,6,7,11 and 16,

Tamura teaches a loudspeaker comprising an enclosure (1); transducer (3); internal vent/first means (6); first external vent/second means (7) and second external vent/third means (8). Tamura fails to clearly teach that the ratio of the acoustic mass of the internal vent to the second external vent is specifically within the range of 3/1 to 7/1 or that the ratio of the acoustic mass of the first external vent to the second external vent is specifically within the range of 15/1 to 30/1.

However, it would have been obvious for one of ordinary skill in the art at the time of the invention to provide vents with different acoustic masses i.e., lengths and/or cross sections, for the purpose of “tuning” the frequency response of the acoustic device. Additionally, it is well known in the art that the size of the passive acoustic radiator i.e., port, vent etc., taken in combination with the size of the sub-chamber(s) will determine the degree of attenuation of the output of the acoustic vibrations from the driver unit. (Pertinent references have been provided, below.)

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Regarding claims 3, 8, 13 and 18,

Tamura fails to specifically teach that the ratio of the first sub-chamber to the second sub-chamber is specifically within the range of 0.3 to 2.5. However, as discussed above, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide sub-chambers having different volumes, for the purpose of “tuning” the frequency response of the acoustic device.

Regarding claims 12 and 17,

Referring to the figure provided by Tamura, the first means (6), second means (7) and third means (8) are of varying acoustic masses. Tamura teaches that the first means, second means, and third means have respective first, second and third acoustic masses. Examiner note to Applicant: to meet the claim’s recitation of “...respective first, second and third acoustic masses.”, the Examiner need only provide a reference which discloses a first, second and third acoustic mass. Said recitation does not mandate that the Examiner secure a reference which provides a first, second and third acoustic mass with varying measurements.

Regarding claims 4,5,9,10,14,15,19 and 20,

Tamura teaches that the cone (3) has a front surface in communication with a first sub-chamber (4) and rear surface in communication with the second sub-chamber (5).

Response to Arguments

Applicant's arguments filed 3/22/04, have been fully considered but they are not persuasive.

3. Regarding The Applicant's argument that: the Examiner's U.S.C. 102 rejection of the claims over TAMURA JP 4-301998 is in contradiction to the Examiner's U.S.C. 103 rejection over TAMURA IN VIEW OF BOBISUTHI (U.S. 5,729,605).

The Applicant is erroneous in concluding that the Examiner has made contradicting rejections. The Examiner has stated in the previous rejection that Tamura teaches "approximately" the ratio claimed. By reciting "approximately" the Examiner is not restricted to applying a reference which is within the nominal bounds of the recited ratio. Instead, the Examiner is able to apply any reference which meets the structure of the claim, since an "approximate" ratio can be fairly defined as any existing ratio.

It follows that the Examiner's rejection of the claims under U.S.C. 103 rejection over Tamura in view of Bobisuthi, states that Tamura does not teach the "specific" ratio recited. As clarified above, a "specific" ratio differs from an "approximate" ratio, in that the Examiner is now restricted to the nominal bounds of the recited ratio, this being a narrower interpretation. Please note, that the Examiner is not required to give the Applicant's claims a narrower interpretation when the claims include such broad recitations as "approximately".

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4. With respect to the Applicant's argument that Tamura Fails To Teach The Amount Of Acoustic Mass Of Any Vent With Respect To The Acoustic Mass Of Another Vent:

It is clear from the Drawing provided by the Tamura reference that acoustic masses 6, 7 and 8, vary from one to the other. It is also clear that any two of the acoustic masses, disclosed by Tamura, will provide a nominal ratio.

As stated above, the Applicant's recitation of an "approximate" ratio is broad. Therefore, a reference which discloses any existing ratio will anticipate the "approximate" ratio as recited in the Applicant's claims. Since Tamura clearly teaches a plurality of acoustic masses, any two of which having a nominal ratio, and since any nominal ratio reads on the broadly recited "approximate" ratio of the Applicant's claims, the rejection is maintained.

5. The Applicant's arguments with respect to Bobisuthi U.S. 5,729,605 have been considered but are moot in view of the new ground(s) of rejection.

6. Please note, that the U.S.C. 103 art rejection over Tamura JP 4-301998 was previously made in paper no. 4, to which the Applicant responded in paper no. 11. Therefore, the U.S.C. 103 art rejection over Tamura JP 4-301998 does not qualify as new grounds of rejection.

Conclusion

The PREVIOUSLY CITED prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

BOBISUTHI et al. (U.S. 5,729,605)

KRNAN (U.S. 4,875,546)

MACALUSO et al. (U.S. 6,160,896)

MOEN (U.S. 3,876,843)

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111. The examiner can normally be reached on Monday through Friday from 8:30am to 6:00pm.

Any responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

,or faxed to:

(703) 308-6306, for formal communications for entry

Or:

(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.


HUYEN LE
PRIMARY EXAMINER